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AMENDMENTS TO THE CLAIMS

(Currently amended) A fully depleted semiconductor-on-insulator (SOI)
field effect transistor (FET), comprising:

a layer of semiconductor material disposed over an insulating layer, the insulating layer disposed over a semiconductor substrate;

a source and a drain formed from the layer of semiconductor material;

a body formed from the layer of semiconductor material and disposed between the source and the drain, wherein:

the layer of semiconductor material is etched such that a thickness of the body is less than a thickness of the source and the drain and such that a recess is formed in the layer of semiconductor material over the body, the body having a thickness of less than about 50 Å; and

the source and the drain form junctions with the body such that no extensions are disposed between either of the source and body or the drain and the body; and

a gate formed at least in part in the recess and the gate defining a channel in the body, the gate including a gate electrode spaced apart from the body by a gate dielectric made from a high-K material.

- 2. (Canceled)
- 3. (Original) The FET according to claim 1, wherein a spacer is formed adjacent each sidewall of the gate electrode.
- 4. (Original) The FET according to claim 3, wherein each spacer is formed at least in part in the recess.

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- 5. (Original) The FET according to claim 3, wherein each spacer is formed from an undoped polycrystalline silicon.
- (Original) The FET according to claim 3, wherein the spacers are respectively separated from the source and the drain by an oxide layer.
- 7. (Original) The FET according to claim 3, wherein the spacers are separated from the gate electrode by the gate dielectric.
- 8. (Original) The FET according to claim 1, wherein the gate electrode is formed from a metal containing material.
- 9. (Original) The FET according to claim 8, wherein the gate electrode is composed of one or more materials selected from aluminum, ruthenium oxide and mixtures thereof.
- 10. (Original) The FET according to claim 1, wherein a source contact is disposed over the source, a drain contact is disposed over the drain and a TEOS oxide layer is formed over the source contact and the drain contact.
- 11. (Original) The FET according to claim 1, wherein the high-K material of the gate dielectric has a relative permittivity of greater than about 20.
- 12. (Original) The FET according to claim 1, wherein the high-K material of the gate dielectric is composed of one or more materials selected from hafnium oxide, zirconium oxide, cerium oxide, aluminum oxide, titanium oxide, yttrium oxide, barium strontium titanate and mixtures thereof.

13-24. (Canceled)